

**Application of organic plant protection tools in grape in Hungary according to Biocont Magyarország Kht during vegetation.**

Pest	Method of protection	Application
Spider mite Tetranychus urticae Leaf mite Calepitrimerus vitis	Typhlodromus pyri predatory mite	Position of Typhlodromus bend each third trunk Position of the bends between December and February.
Grape berry moth Lobesia botrana Vine Moth Eupoecilia ambiguella	Isonet L plus	500 db feromon vaporizer/ha more than 3 ha- vineries between 5-15 of April
Grape berry moth Lobesia botrana Vine Moth Eupoecilia ambiguella	Dipel, Dipel ES,	According to feromon lure forecasting the spring generation on the 8-10 day in the case of summer after 5-6 days of the reasonable amount of catching, if hatching is prolonged repetition should be done, dose: 1-1,5 kg/ha. SpinTor 0,1 l/ha
Plasmopara viticola Powdery mildew	Kocide 2000 53,0% copper hydroxide fungicide and bactericide - for all fungal diseases except powdery mildew and grey mildew,	Before flowering 2,0 kg/ha, after 3,0 kg/ha dose: 800-1000 litre with water.
Pseudopezicula tracheiphila Rotbrenner of grape	Kocide 2000	Before flowering 2,0 kg/ha, after 3,0 kg/ha dose: 800-1000 litre with water..
Powdery mildew	Thiovit Jet 80 % of sulphur easily suspended in the diluents of the spray; the proportion of the small and medium size of sulphur grains is optimal, does not burn the tissues of the leaves	Before flowering 7,5-12 kg/ha, after 2-3 kg/ha dose
Leaf mite Calepitrimerus vitis	Thiovit Jet	Before flowering 7,5-12 kg/ha, after 2-3 kg/ha dose
Grape berry moth Lobesia botrana	SpinTor	0,1 litre/ha dose

Vine Moth Eupoecilia ambiguella	Originated from <i>Saccharopolyspora spinosa</i> bacterium different from all other insecticide, because of the development of the effect: influencing the cell membrane transport of Na <sup>+</sup> and Cl <sup>-</sup> through that blocking the stimuli in the nervous system	
Grape berry moth Lobesia botrana Vine Moth Eupoecilia ambiguella	Laser Originated from <i>Saccharopolyspora spinosa</i> bacterium different from all other insecticide, because of the development of the effect: influencing the cell membrane transport of Na <sup>+</sup> and Cl <sup>-</sup> through that blocking the stimuli in the nervous system	0,2 litre/ha dose.
Powdery mildew disease of trunks, mites, Pulvinaria betulae Cottony grape scale	Tiosol with lime sulphur Limesulphur containing 23 % potassium polysulfide fungicide and insectid liquid, because the strong alkalic pH affects fungi. In case of the insect pests solves the wax of the insect body opening way of the effect of released sulphur.	Dormant period: 8-10 %- dose bud development : 3-5 5%- vegetation seasons: 1-2 % dose

<b>Soil conditioners</b>		
Product	Advantage	Application
Hungavit A	Conditioning the plants foster tolerance stress tolerance increase yield and fruit (berry) size, improve quality and early ripening	5 l/ha dose in 300-600 litre diluents in 3-5 times in a season. Early morning or late afternoon!
Csöppmix 3	Foliage fertilise increasing stress tolerance increase yield and fruit (berry) size improve quality	From the first treatment of the vineyard before flowering 0,3-0,5 %, or 3 l/ha at each spraying.
<b>Plant conditioners</b>		
Potassium silicate	Effect the cells of epidermis mechanically Inducing active protective mechanisms	With spraying before the possible infestation, starting at 5 leaves stage of the grape
Myco-Sin VIN	Al ions content with plant extract induce polyphenolic synthesis in the grape enhance immune system and increase natural resistance	With spraying 1-2 days before the rain. Starting at 5 leaves stage of the grape, then repeat it every 7-10 till fruit ripening 2-3 occasions, maximum amount 10 kg /ha

Oikomb	<p>Herb oils + K silicate induced resistance</p> <p>Consist of two components: (A+B)</p> <p>Component A potassium silicate, resulting the hard epidermis tissue of the leaves –ceasing the penetration of the hifa.</p> <p>Component <b>B HF Mycol</b> mainly consists of fennel oil + plant extracts enhancing the resistance of the plant by induced resistance.</p>	<p>The two components of the product is mixed 1:1 proportion and sprayed first before flowering then after 10-7 days repetition till ripening 2-6 times.</p> <p><b>Do not use during flowering - results sterility</b></p> <p>Dose: 2,5 kg/ha K-K silicate + 2,5 l/ha HF Mycol with 600 litre/ha water.</p> <p><b>Do not mix with chemicals sensitive to alkali pH.</b></p>
VitiSan	<p>Potassium bicarbonate changing the pH on leaf surface</p>	<p>The high pH of Potassium bicarbonate and the osmotic pressure after the spraying create an unfavourable condition for the fungi. On the other hand supports the natural microflora on the leave surface that occupies the territory from the fungi.</p> <p>Potassium content is enhancing the natural tolerance of the plant.</p> <p><b>Apply it 7-10 days starting from the ripening of the berries in 0,5-1% concentration maximum amount 10kg/ha as spraying the leaves.</b></p>